

CASE REPORT

Kikuchi-Fujimoto Disease Presenting With Leukocytosis

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ABSTRACT

Kikuchi-Fujimoto disease (KFD) is a rare, generally benign and self-limited cause of lymphadenitis. It typically presents with cervical lymphadenopathy and systemic manifestations. Leukopenia is a usual finding and KFD is often mistaken for lymphoma. We report a case of KFD with leukocytosis. Excisional lymph node biopsy confirmed the diagnosis. In patients with KFD it is important to rule out other serious disorders, including infectious and autoimmune diseases.

INTRODUCTION

Kikuchi-Fujimoto disease (KFD) or histiocytic necrotizing lymphadenitis is a very uncommon, self-limited disease first described in 1972 by Kikuchi and Fujimoto independently in the same year. It is characterized by cervical lymphadenopathy and fever.^{1,2} There is a female predominance (about 2-fold)³ and it usually affects young adults under the age of 30 years.⁴

The major differential diagnosis includes lymphoma and systemic lupus erythematosus (SLE).^{2,5,6} Because of leukopenia, it is usually mistaken with lymphoma. We herein report a case of KFD presenting with leukocytosis.

CASE REPORT

A 30-year-old man presented to our clinic with cervical lymphadenopathy. The cervical node was mildly tender. The patient had a history of one-month malaise, fever, night sweats and weight loss. Past medical history was free of any significant disease. Considering drug history, he denied use of any medication or illicit drug on a regular basis and never consumed alcohol.

On physical examination, the patient was febrile (38.2° C). A mobile and tender node was palpated in the posterior cervical area. The size of the node was 1.5 x 2 cm. No other lymph nodes were detected in the head and neck, or the axillary and inguinal areas. Abdominal examination showed no hepatomegaly or splenomegaly. Other findings on physical examination were normal.

Chest X-ray was normal. Laboratory tests showed a leukocytosis (17000/ μ L) without a shift to the left (64% neutrophils, 31% lymphocytes, 3% monocytes, 1.5% eosinophils

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KEY WORDS: *Kikuchi-Fujimoto disease; cervical lymphadenopathy; lymphoma; leukocytosis; systemic lupus erythematosus*

LIST OF ABBREVIATIONS

KFD = Kikuchi-Fujimoto disease

SLE = systemic lupus erythematosus

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and 0.5% basophils). Erythrocyte sedimentation rate was 81 mm/h. Rheumatoid factor and anti-nuclear antibodies were negative. Liver and renal function tests were normal. Screening testing for tuberculosis, toxoplasmosis, infectious mononucleosis and cat-scratch disease were negative.

An excisional biopsy of the enlarged lymph node was performed. Histopathological examination showed lymphoid tissue with a large well-circumscribed necrotizing lesion (Fig. 1). Abundant karyorrhetic debris, scattered fibrin deposits and collections of mononuclear cells were seen (Fig. 2). The number of neutrophils was proportionally low and some degree of secondary xanthomatous reaction was noted. No clear-cut granulomatous reaction was seen. Acid-fast (Ziehl-Neelsen) stain was negative. Thus, according with the histopathological study, KFD was confirmed. Patient was managed conservatively and six-month follow up was uneventful. No recurrence or complications were observed.

DISCUSSION

In order to properly approach a patient with cervical lymphadenopathy, several factors such as age, location of lymphadenopathy, accompanying systemic manifestations, features of enlarged node(s), and presence of splenomegaly should be considered. Kikuchi-Fujimoto disease (KFD) is a rare cause of cervical lymphadenopathy. Although the etiology of KFD is still unclear, several viral infections such as those with human herpesvirus 6 and 8, Epstein-Barr virus, parvovirus

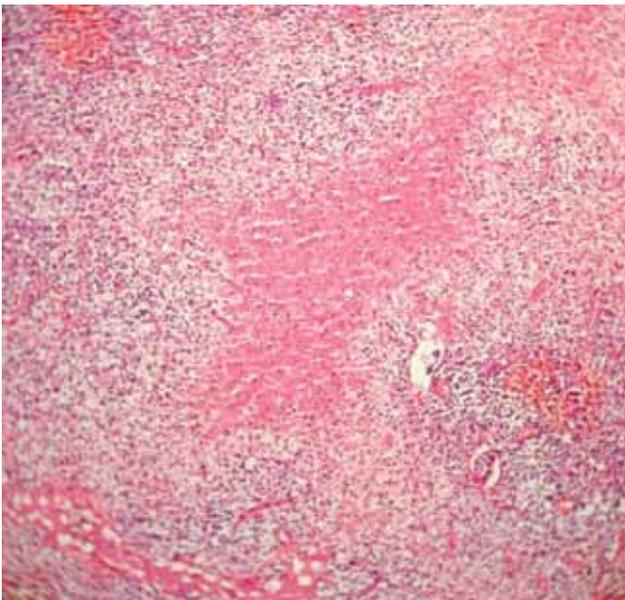


FIGURE 1. Low-power view of lymph node showing necrotizing lesion.

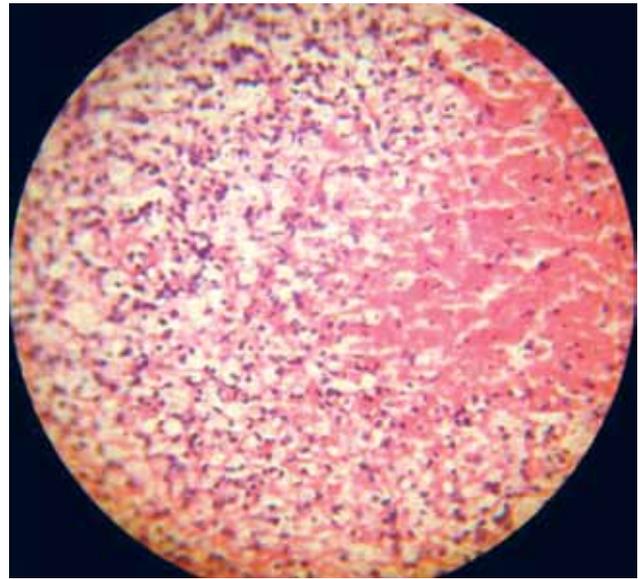


FIGURE 2. High-power view shows numerous foci of karyorrhetic debris, collections of large mononuclear cells and few numbers of neutrophils and plasma cells.

B19 and human immunodeficiency virus have been suggested to play a role in KFD.⁷⁻¹⁰ This type of lymphadenitis (KFD) can present with a broad spectrum of clinical features. The most important point is to conduct a proper differential diagnosis. Considering laboratory testing, approximately 50% of cases have leucopenia in the form of granulocytopenia. In the presence of KFD and leucopenia, the differential diagnosis should include, among other diseases, lymphoma and systemic lupus erythematosus (SLE).¹¹

In fact, 40% of patients with KFD may be diagnosed as lymphoma at first.¹² Prognosis and treatment approaches of lymphoma and KFD are quite different. Thus, it is very important to consider such a rare disease (KFD) in patients with leucopenia. Some useful pathological clues for differentiating KFD from lymphoma are the absence of Reed-Sternberg cells, the presence of large numbers of reactive histiocytes and low rate of mitosis in KFD.¹¹ However, in our case, leukocytosis was present instead of leucopenia. Considering fever and cervical lymphadenopathy, infectious and autoimmune diseases should be ruled out first. Amongst infectious diseases, cat-scratch disease, infectious mononucleosis, toxoplasmosis and tuberculosis are the top most important differential diagnoses.

Another important differential diagnosis is SLE. The association between KFD and SLE is still unclear. Some reports described a strong association, while other ones ruled that out. As such an association has not yet been ruled out completely, considering SLE seems prudent in such cases. Although the present case did not have cutaneous manifestations, nevertheless SLE should be excluded before a definite diagnosis of

KFD is considered. Thus, antinuclear, antiphospholipid and anti-double stranded DNA antibodies are negative in KFD. Importantly, some histopathological findings in KFD and SLE may be similar, however, some clues could offer help in differentiating these two disorders. The KFD does not usually have hematoxylin bodies, neutrophils and plasma cells, or may have very few of them.¹¹

In conclusion, the KFD can present with either leucopenia or leukocytosis, however leukocytosis is much less common (<5%). In cases of leucopenia, it is important to consider viral diseases, but it is equally crucial to exclude lymphoma and SLE before KFD is confirmed. On the other hand, in cases with leukocytosis, the most important differential diagnoses are infectious diseases. Finally, excision of the node which also confirms the diagnosis or conservative therapy remains a recommended best treatment approach.

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